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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/938,586	08/27/2001	Katsuhiro Ishii	Q65940	2719

7590 09/23/2004
SUGHRUE, MION, ZINN, MACPEAK & SEAS
2100 Pennsylvania Avenue, N.W.
Washington, DC 20037

EXAMINER

SING, SIMON P

ART UNIT	PAPER NUMBER
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2645

DATE MAILED: 09/23/2004 5

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/938,586

Applicant(s)

ISHII, KATSUHIRO

Examiner

Simon Sing

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-5 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-5 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 27 August 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 2, 3, 4.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____.

DETAILED ACTION

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

1. Claims 1-5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Matsuda, Japanese Patent Publication Number 11-355056 in view of the prior art (hereafter The Prior Art) discloses in the Specification of the present invention.

1.1 Regarding claims 1 and 4, Matsuda discloses a second harmonic suppression device in figure 1. Matsuda teaches a band-pass filter 3 for extracting a signal of the second harmonic (unnecessary radiant wave) leaked out from amplifier 1, a phase shifter 4 for shifting the signal of second harmonic out of phase, and a combiner 6 for adding the out phase signal of second harmonic to the output of amplifier 1 to cancel the second harmonic. Matsuda teaches extracting the signal of a second harmonic out from amplifier 1, but fails to teach extracting a signal, at the same frequency band as the second harmonic of amplifier 1, out from another amplifier.

However, The Prior Art discloses in figure 2 of the Specification teaches dual-frequency-band amplifiers 11 and 12, such that amplifier 12 operates at the second

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harmonic frequency band (1800 MHz) of amplifier 11 (900 MHz) (page 3, lines 1-11 of the Specification).

Therefore, in a dual-frequency-band system, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the Matsuda's reference so that a signal, same as the second harmonic frequency band of a first amplifier, would have been extracted from a second amplifier operating at the second harmonic frequency band, because extracting a signal at the second harmonic frequency band from the second amplifier instead from the first amplifier would have been a matter of design choice, since both amplifiers provided signal sources at the second harmonic frequency band.

1.2 Regarding claim 2, Matsuda teaches a distributor 2 (demultiplexing means) for distributing power outputs from the first amplifier, and it is inherent that when the signal was extracted from a second amplifier, the distributor would have been connected to the output of the second amplifier. The Prior Art of modified Matsuda's reference also teaches a second filter (low pass filter 14) for extracting desire signal from the second amplifier, and a diplexer 15 (output means) for outputting signals to antenna 16.

1.3 Regarding claim 3, the modified Matsuda's reference, teaches a first filter (band pass filter, discussed in claim 1), and a second filter (low pass filter 14 of The Prior Art).

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1.4 Regarding claim 5, the modified Matsuda's reference, The Prior Art teaches a low pass filter 14 for extracting desire signal from the second amplifier.

Conclusion

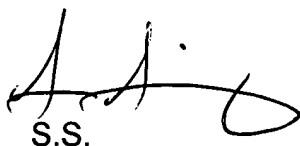
2. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Kahn US 4,811,422, discloses a method and system for reducing undesirable harmonic components.

3. Any inquiry concerning this communication or earlier communication from the examiner should be directed to Simon Sing whose telephone number is (703) 305-3221. The examiner can normally be reached on Monday - Friday from 8:30 AM to 5:30 PM. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Fan Tsang, can be reached at (703) 305-4895. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-4750.

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S.S.

09/14/2004

FAN TSANG
SUPERVISORY PATENT EXAMINER
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